
XIII. *The History and Description of a new Species of Fucus. By Thomas Woodward, Esq. Fellow of the Linnean Society.*

Read April 7, 1789.

A PLANT belonging to the order of Algæ of the Cryptogamia class of Linnæus, and supposed to be a non-descript Fucus, has been long found in great quantities on the beach at Yarmouth, amongst other rejectamenta of the sea. A specimen of this was sent some years ago by Mr. Pitchford to the late ingenious Mr. Lightfoot, whose knowledge of this class of plants was undoubtedly great, and whose judgment deservedly held in the highest esteem. In answer to Mr. Pitchford's enquiries, Mr. Lightfoot declared that the plant was new to him, and was not, as he believed, described in Mr. Hudson's Flora Anglica, or by any author with which he was acquainted; but, till it could be found in fructification, nothing could be positively ascertained concerning it. On the arrival of the Linnean Herbarium in England, I carried a specimen to London, and compared it, along with my worthy and learned friend, in whose possession the Herbarium now is, with the specimens of Fuci there preserved; but we found none that at all corresponded with it. In this state it rested, it not being ever known from whence the plant, though so frequent on the Yarmouth beach, was washed; when in the month of October, 1787, I visited Cromer, on the north-east coast of Norfolk, with a view of examining what sea-plants grew on the rocks there, as they are called by the

inhabitants. These rocks are formed of sea-pebbles and other large stones, which are thrown up by the waves on that exposed shore in immense quantities, and are agglutinated by the sea-slime into masses of various sizes; these are left dry by the recess of the tide to a considerable distance. The surface is very unequal, and consequently numerous ponds of salt water, various in size and depth, are seen amongst them; and as these in a calm day are perfectly clear and pellucid, the sea-plants growing on the stones are there exhibited in great beauty. Amongst others I observed great plenty of the above-mentioned plant; so much, that I had reason to conclude, that the principal part of what was found on the beach at Yarmouth, and elsewhere to the southward, was washed from this part of the coast. I searched for its fructification, but in vain; and therefore contented myself with observing its mode of growth, without thinking of making any particular description of the plant. In the following winter I received some specimens of marine plants, fresh from the sea, from Mr. Wigg, school-master, at Yarmouth; to whom we are obliged for the discovery of many rare and some new species of Algæ, and who deserves the warmest applause for his industry in collecting, and sagacity in ascertaining numerous plants, almost unassisted by books. Amongst these I was equally surprised and pleased to find this plant in a state of fructification, and still more to observe, on examination, that the fructification was particularly curious, and unlike that of any species of *Fucus* hitherto described. It being now clearly ascertained that this is a non-descript *Fucus*, it may be distinguished by the name of

Fucus subfuscus.

Fronde filiformi, ramosissima, ramis ramulisque sparsis, foliis subulatis subalternis, fructificationibus paniculatis, capsulis sub-octospermis.

Place in the genus, next to *Fucus filiquosus*.

Hab. Cromer on the coast of Norfolk. Duration ☉?

DESCRIP-

D E S C R I P T I O N.

THE plant adheres to the stones under the surface of the water, without any visible root, immediately branching into numerous stems. Individual fronds about six inches high, the size of small twine, round, and rough towards the base with the remains of broken branches; the lower part of the principal branches having the same appearance. Branches numerous, growing without order; towards the summit much crowded; nearly the size of the stem: these again branched in a similar manner; the last clothed with short subulate leaves, growing in a subalternate order, but not regularly.

The fructification is situate in the bosom of the leaves and of the smaller branches, on short fruit-stalks, each of which appears to the naked eye to bear one or more capsules, about the size of the smallest pin's head. These capsules, viewed with a good common eye-glass, have the appearance of flowers, consisting of several fleshy petals, much resembling the germina of the Sedums; but when moistened with water and put under the microscope, it appears that they are composed of several lanceolate capsules, on short fruit-stalks forming a panicle, or sometimes a simple umbel; each individual having the appearance of a filiqua, and containing six or eight round somewhat compressed seeds, disposed in two parallel lines. These seed-vessels appear to have neither valves nor dissepiment, nor are the seeds attached to any ligament; therefore it is truly a capsule of one cell, and not either filique or legume.

The colour of the plant is reddish brown, or subfuscous, when fresh; when dry it is nearly black; but if moistened, or held before a strong light, the real colour may be observed. The capsules are pale and semi-transparent, the seeds the colour of the plant.

When

When dry it shrinks from the size of small packthread to that of coarse thread, and the branches in proportion.

By its being so constantly found on the beach in winter, I should suppose its duration annual, and its time of flowering the autumn, being in seed in winter.

REFERENCE TO THE FIGURE. TAB. 12.

Fig. 1. A single stem complete. This is the representation of a dried specimen, of a young and perfectly vigorous plant, but not in a state of fructification. When older, many of the smaller branches and leaves are broken off, giving the plant a more naked appearance—natural size.

2. A small branch of another dried specimen, with the fructification—natural size.

3. A part of ditto, magnified. The leaves and ends of the branches, when highly magnified, appear slightly bifid, but not so exactly or regularly as the figure represents. Whether this be the real growth, or only owing to accidental breaking by the waves, I could not ascertain; but it was the same in all the branches which I examined, and is therefore probably natural.

4. Different appearances of the fructification.

5. A single capsule very highly magnified, and shewing the seeds as naturally disposed. This is represented in the figure rather too broad, and too acutely pointed.